

SPECIES OF ICHNEUMONIDAE (HYMENOPTERA) PARASITIZING *ORGYIA ERICAE* WITH DESCRIPTION OF A NEW SPECIESSHENG Mao-Ling¹, ZHAO Rui-Xing²

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Abstract Four species of Ichneumonidae, *Eutanyacra picta* (Schrank), *Itopectis viduata* (Gravenhorst), *Pimpla disparis* Viereck, and a new species, *Dichrogaster orgyiae* Sheng, sp. nov., reared from *Orgyia ericae* Germar in Ningxia and Inner Mongolia, are reported. Type specimens are deposited in the Insect Museum, General Station of Forest Pest Management, State Forestry Administration, China.

***Dichrogaster orgyiae* Sheng, sp. nov.** (Figs 1–7)

This new species is similar to *D. parva* Yoshida et Konishi, 2008, but the female can be distinguished from the latter (♀) in having face particularly wide, approximately 2.4 times as wide as long, punctures indistinct; frons with fine coriaceous texture and fine indistinct punctures; areola 2.1 times as wide as long, connecting costula at its middle; areolet receiving vein 2m-cu about at 0.3 distance from vein 2rs-m to 3rs-m; teeth of lower valve of ovipositor indistinct; flagella black, ventral profile slightly brownish; anterior portion of tergum 3 brown, posterior portion and the following terga black. *D. parva* (male unknown): face is not particularly wide, approximately 1.9 times as wide as long, with dense punctures; frons with fine and distinct punctures, the space between punctures smooth; areola 2.5 times as wide as long, connecting costula approximately at its posterior 0.33; areolet receiving vein 2m-cu about at its middle; lower valve of ovipositor with nine distinct teeth; tergum 3 brown, tergum 4 and the following terga dark brown.

Holotype ♂, Zhungerqi, alt. 1 040 m, Inner Mongolia, 24 Aug. 2007, SHENG Mao-Ling. Paratypes: 1 ♂, hangjinqi, alt. 1 200 m, Inner Mongolia, 8 Sep. 2007, SHENG Mao-Ling; 1 ♂, Yanchi, alt. 1 380 m, Ningxia, 17 Aug. 2009, WU Jin-Xia; 1 ♀, Zhungerqi, alt. 1 040 m, Inner Mongolia, 13 Sep. 2007, SHENG Mao-Ling.

Host. *Orgyia ericae* Germar.

Etymology. The specific name is derived from the

host's name.

***Eutanyacra picta* (Schrank, 1776)**

Ichneumon pictus Schrank, 1776. *Beiträge zur Naturgeschichte (Leipzig)*, 1776: 88.

Material examined. 1 ♀, 1 ♂ (reared from *Orgyia ericae* Germar), Dongsheng, alt. 1 380 m, Inner Mongolia, 7 to 10 June 2006, SHENG Mao-Ling; 1 ♀ (reared from *Orgyia ericae* Germar), Erduosi, alt. 1 310 m, Inner Mongolia, 12 July 2008, SHENG Mao-Ling.

***Pimpla disparis* Viereck, 1911**

Pimpla disparis Viereck, 1911. *Proceedings of the United States National Museum*, 40: 480.

Material examined. 3 ♀ ♀, 1 ♂ (reared from *Orgyia ericae* Germar), Erduosi, alt. 1 380 m, Inner Mongolia, 15 Sep. to 6 Nov. 2006, SHENG Mao-Ling; 1 ♀, 2 ♂ ♂ (reared from *Zeiraphera griseana* (Hübner)), Liupanshan, Ningxia, 18–30 July 1990; 1 ♀, 3 ♂ ♂ (reared from *Zeiraphera griseana* (Hübner)), Liupanshan, Ningxia, 28–30 July 1991; 4 ♀ ♀, 3 ♂ ♂ (reared from *Dioryctria pryeri* Ragonot), Shenyang, Liaoning, 20–29 June 1996, SHENG Mao-Ling; 4 ♀ ♀, 3 ♂ ♂ (reared from *D. pryeri* Ragonot), Shenyang, Liaoning, 13–14 Aug. 2007, SHENG Mao-Ling.

***Itopectis viduata* (Gravenhorst, 1829)**

Pimpla viduata Gravenhorst, 1829. *Ichneumonologia Europaea*, 3: 214.

Material examined. 1 ♀, (reared from *Dioryctria pryeri* Ragonot), Shenyang, Liaoning, 24 May 1990, SHENG Mao-Ling; 4 ♀ ♀ (reared from *Orgyia ericae* Germar), Dongsheng, Inner Mongolia, 13 Sep. 2006, SHENG Mao-Ling; 4 ♀ ♀, 2 ♂ ♂ (reared from *Orgyia ericae* Germar), Yanchi, Ningxia, 21 Sep. 2006, SHENG Mao-Ling; 2 ♀ ♀, 5 ♂ ♂ (reared from *Zeiraphera griseana* (Hübner)), Liupanshan, Ningxia, 30 Aug. 2007; 7 ♀ ♀, 1 ♂ (reared from *Orgyia ericae* Germar), Dongsheng, Inner Mongolia, 18 June 2008, SHENG Mao-Ling.

Key words Hymenoptera, Ichneumonidae, *Dichrogaster*, new species, parasitoid, *Orgyia ericae*.

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寄生灰斑古毒蛾的姬蜂（膜翅目，姬蜂科）及一新种记述

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摘 要 报道采集自宁夏和内蒙古、寄生灰斑古毒蛾 *Orgyia ericae* Germar 的 4 种姬蜂：地蚕大钹姬蜂 *Eulanyacra picta* (Schrank)、舞毒蛾黑瘤姬蜂 *Pimpla disparis* Viereck、寡埃姬蜂 *Itopectis viduata* (Gravenhorst)、古毒蛾歧腹姬蜂 *Dichrogaster orgyiae* Sheng, sp. nov.。介绍了新种和近似种及我国已知种的主要区别特征并附彩色特征图。

关键词 膜翅目，姬蜂科，新种，寄生性天敌，灰斑古毒蛾。

中图分类号 Q969.544.8

近年来，灰斑古毒蛾 *Orgyia ericae* Germar 在我国西北部的宁夏、内蒙古西部及新疆等沙区大面积发生，严重为害沙生植物沙冬青 *Ammopiptanthus mongolicus* Cheng f.、杨柴 *Hechysarum mongolicum* Turcz.、花棒 *Hedysarum scoparium* Fisch. et Mey. 和柠条 *Caragana korshinskii* Kom. 等，对荒漠防护林构成一定的威胁。为了探索这类地区的生物多样性，笔者在内蒙古、辽宁及宁夏荒漠地区进行了灰斑古毒蛾寄生性天敌调查，并相继进行了报道（李海燕等，2008；Cui et al., 2011）。在近来的研究过程中，发现姬蜂科的 4 种寄生性天敌，其中含隶属歧腹姬蜂属 *Dichrogaster* Doumerc, 1855 的 1 新种。

歧腹姬蜂属 *Dichrogaster* Doumerc, 1855

Dichrogaster Doumerc, 1855. *Annales de la Société Entomologique de France*, 3 (3): 38.

Type-species: *Microgaster perlae* Doumerc. Monobasic.

前翅长约 2.6 ~ 5.5 mm。唇基非常小，稍隆起或几乎平，端缘薄。胸非常短；腹板侧沟强，伸达中胸侧板后缘；中胸腹板后横脊不完整。并胸腹节背面非常短，后背面至少 2 倍长于背面长。小脉与基脉对叉，或位于其稍外侧；无第 2 肘间横脉；后小脉垂直或稍外斜，曲折。腹部第 1 节背板较狭长，气门远位于中部之后；腹板端缘位于气门稍前侧。产卵器鞘约为前翅长的 0.3 倍。产卵器具明显的背结。

迄今为止，全世界已知 44 种。我国仅知 1 种：柱歧腹姬蜂 *Dichrogaster liostylus* (Thomson, 1885)，分布于台湾。最近在研究灰斑古毒蛾 *Orgyia ericae* Germar 天敌时，发现本属 1 新种。

古毒蛾歧腹姬蜂，新种 *Dichrogaster orgyiae* Sheng, sp. nov. (图 1 ~ 7)

♂ 体长约 4.5 mm。前翅长约 3.4 mm。触角长约 3.0 mm。

颜面宽约为长的 1.86 倍，表面稍呈细革质状质地，具细刻点，刻点间距为刻点直径的 0.2 ~ 1.5 倍；

中央弱瘤状隆起；上缘中央浅凹。唇基凹封闭。唇基几乎平，中部横向稍隆起，光滑光亮，基部具粗大不规则的刻点；端部稍微下凹，具非常弱且不清晰横线纹；端缘弧形均匀向前突出。上颚短小。颊区具革质细粒状表面；颧眼距约为上颚基部宽的 1.1 倍。上颊光滑光亮，具非常稀疏不均匀的细刻点，均匀向后收敛。头顶在侧单眼外侧具与上颊相似的质地；侧单眼后缘至后头脊强烈下斜，下部在后头脊的上方稍横凹；侧单眼间距约为单复眼间距的 1.8 倍。额饱满（或多或少隆起），具清晰的细刻点，刻点间距约为刻点直径的 0.2 ~ 1.0 倍；仅下部（触角窝上方）稍凹且光滑。触角短，逐渐向端部变尖，鞭节 20 ~ 21 节；第 1 ~ 5 鞭节长度之比依次约为 2.8 : 2.3 : 2.2 : 2.0 : 1.9；触角瘤细线形，较弱，位于第 10 ~ 12 节。后头脊完整，强壮。

前胸背板前缘具短纵皱，后上部具清晰的刻点，亚后上缘具与后上缘平行的浅沟；侧纵凹内具稠密的横皱；侧纵凹的亚上部具伸向前胸背板后肩角的斜凹，该斜凹近似三角形，几乎抵达后肩角，斜凹内具稠密的皱；前胸背板的下端光滑光亮，呈角状。中胸盾片均匀隆起，具较均匀的刻点；刻点间距为刻点直径的 0.2 ~ 1.5 倍；盾纵沟非常弱，仅前端明显。盾前沟内具短纵皱；侧面深凹。小盾片几乎不隆起，具不均匀的刻点，刻点间距为刻点直径的 0.5 ~ 3.0 倍；侧脊几乎伸达后端缘。后小盾片小，光滑光亮，前侧角处深凹。中胸侧板光滑光亮，具非常稀且细的刻点；胸腹侧片具较密且不清晰的刻点；胸腹侧脊强壮，伸至翅基下脊；沿胸腹侧脊后侧具短横皱；腹板侧沟下方的刻点稠密且不清晰；腹板侧沟深，伸抵中胸侧板后缘（后下角的上方）；翅基下脊突出呈薄片状；中胸侧板凹深凹陷。后胸侧板具稠密粗大的刻点，后部具不规则的皱；无基间脊。翅透明；翅痣大，三角形，径脉出自它的中部；小脉与基脉对叉；小翅室开放；第 1 肘间横脉稍长于它至第 2 回脉之间的距离；第 2 回脉稍内斜；外小脉在下方 0.3 处曲折；

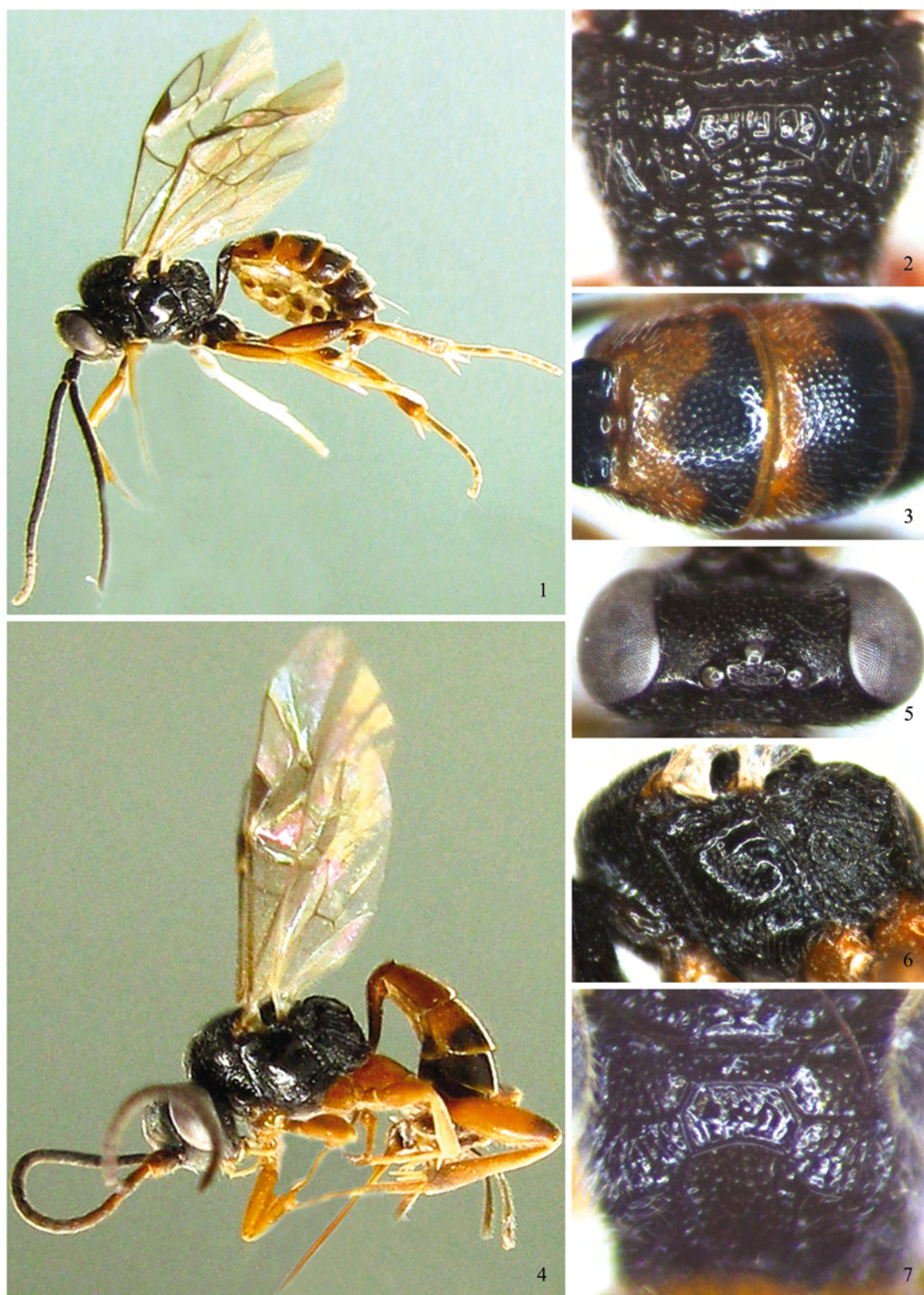


图 1~7 古毒蛾歧腹姬蜂, 新种 *Dichrogaster orgyiae* Sheng, sp. nov.

1~3. 雄 (male) 4~7. 雌 (female) 1, 4. 侧面观 (lateral view) 2, 7. 并胸腹节 (propodeum) 3. 腹部背板 (terga) 5. 头部背面观 (head, dorsal view) 6. 中胸侧板 (mesopleuron)

后小脉几乎垂直 (稍外斜), 约在中央曲折。足稍粗壮; 爪非常小; 后足腿节稍侧扁, 侧面观, 长约为最宽处的 3.3 倍, 约为胫节长的 0.85 倍; 后足第 1~5 跗节长度之比依次约为 6.0:3.0:2.3:1.3:2.2。并胸腹节分区完整, 脊强壮; 基区倒梯形, 向前强烈下

凹, 侧脊向后稍收敛, 基宽约为端宽的 1.1 倍, 具非常弱且不清晰的刻点; 中区横六边形, 端脊稍前弓, 内具清晰的纵脊, 宽约为长的 2.5~2.6 倍; 分脊出自它的中部, 具非常大的刻点; 第 1 侧区具清晰的细刻点; 第 2、3 侧区具不规则的弱皱; 第 1、2 外侧区

具稠密不清晰的刻点;第3外侧区和端区具清晰的横皱;气门非常小,约呈圆形,位于第1外侧区的后外部,紧靠外侧脊。

腹部第1节背板长约为端宽的1.9倍,光滑光亮,具非常稀且细的刻点;背中脊不明显;背侧脊和腹侧脊完整;柄部狭长;自气门稍前侧向后强烈变宽;气门非常小,圆形,约位于第1节背板端部0.3处。第2~4节背板具细且不均匀的刻点;第2节背板长,长约为端宽的0.75倍。第3节背板两侧近平行,长约为宽的0.65倍。第5节背板仅中部具少量细刻点。下生殖板小且尖。

头胸部黑色,但下列部分除外:下唇须,下颚须,上颚(基缘和端齿褐黑色),触角柄节、梗节下侧,足(前中足基节及转节全部或大部分和后足基节及第1转节全部黑色除外)黄褐色;后足腿节端部和胫节端部褐黑色;柄节、梗节背侧大部分褐色;唇基端缘和前胸背板后上缘的狭边或多或少带红色;翅基片黄色;翅痣和前翅翅脉黑褐色;后翅翅脉浅褐色。腹部第1节背板黑色;其余背板褐黑色(个别为不清晰的褐色);第2~5节背板亚端部具褐黑色不均匀的横带,第2节的横带中部扩大,向前凸。

♀ 体长约4.7 mm。前翅长约3.5 mm。产卵器鞘长约1.0 mm。颜面较宽,宽约为长的2.4倍;具不清晰的细粒状表面,刻点不明显。唇基沟上部(最高处)位于复眼下缘的连线上。颚眼距约为上颚基部宽的1.6倍。眼下沟弱。侧单眼间距约为单复眼间距的1.5倍。额具皮革质状质地及细弱不清晰的细刻点。触角鞭节23节,基部几节稍细;第1节长约为该节直径的2.5倍;第1~5鞭节长度之比依次约为2.9:2.4:2.1:1.8:1.7。前翅小脉与基脉交叉;小翅室开放,第2回脉约在它的基部0.3处相接;后翅后小脉约在下方0.35处曲折。中胸侧板具粗刻点;镜面区光滑光亮,无刻点。并胸腹节中区横六边形,宽约为长的2.1倍;分脊在它的中部相接。腹部第1节背板长为端宽的1.7倍。第2节背板长为端宽的0.6倍。产卵器鞘长约为后足胫节长的0.85倍。产卵器背瓣无背结,腹瓣端部无明显的纵脊。触角鞭节黑色,腹面稍带褐色;腹部第1~2节背板和第3节背板的基部褐色;其余背板黑色;但第4、5节后缘的狭边褐色;翅痣褐黑色。

正模♂,内蒙古准格尔旗,海拔1040 m,2007-08-24,盛茂领采。副模:1♂,内蒙古杭锦旗,海拔1200 m,2007-09-08,盛茂领采;1♂,宁夏盐池,海拔1380 m,2009-08-17,吴金霞采;1♀,内蒙古准格尔旗,海拔1040 m,2007-09-13,盛茂领采。

寄主:灰斑古毒蛾 *Orgyia ericae* Germar。

词源:新种种名源自寄主名。

新种与小歧腹姬蜂 *Dichrogaster parva* Yoshida et Konishi, 2008 相似,可通过(♀)下列特征与后者区别:颜面特别宽,宽约为长的2.4倍,刻点不明显;额具皮革质状质地及细弱不清晰的细刻点;并胸腹节中区宽约为长的2.1倍,分脊在它的中部相接;第2回脉约在小翅室的基部0.3处与其相接。产卵器腹瓣端部无清晰的纵脊;触角鞭节黑色,腹面稍带褐色;腹部第3节背板仅基部褐色,后部及其后的背板黑色。小歧腹姬蜂(♂不详):颜面不特别宽,宽约为长的1.9倍,具稠密的刻点;额具清晰的细刻点,刻点间光滑光亮;并胸腹节中区宽约为长的2.5倍,分脊约在它的后部0.33处相接;第2回脉在小翅室的中央与其相接;产卵器腹瓣端部具9条清晰的纵脊;腹部第4节及其后的背板暗褐色。

地蚕大铗姬蜂 *Eutanyacra picta* (Schrank, 1776)

Ichneumon pictus Schrank, 1776. Beiträge zur Naturgeschichte (Leipzig). P. 88.

寄主:已知寄主约有15种,我国已知寄主主要有:灰斑古毒蛾 *Orgyia ericae* Germar 等。

观察标本:1♀,1♂,内蒙古东胜,海拔1380 m,2006-06-10~07-10,盛茂领采;1♀,内蒙古鄂尔多斯,海拔1310 m,2008-07-12,盛茂领采。

舞毒蛾黑瘤姬蜂 *Pimpla disparis* Viereck, 1911

Pimpla disparis Viereck, 1911. Proceedings of the United States National Museum, 40: 480.

寄主:已知寄主约有67种,我国已知寄主主要有:灰斑古毒蛾 *Orgyia ericae* Germar;微红梢斑螟 *Dioryctria rubella* Hampson、果梢斑螟 *D. pryeri* Ragonot、松线小卷蛾 *Zeiraphera griseana* (Hübner) 等。

观察标本:3♀♀,1♂,内蒙古鄂尔多斯,海拔1380 m,2006-09-15~11-06,盛茂领采;1♀,2♂♂,宁夏六盘山,1990-07-18~30;1♀,3♂♂,宁夏六盘山,1991-07-28~30;4♀♀,3♂♂,辽宁沈阳,1996-06-20~29,盛茂领采;4♀♀,3♂♂,辽宁沈阳,2007-08-13~14,盛茂领采。

寡埃姬蜂 *Itopectis viduata* (Gravenhorst, 1829)

Pimpla viduata Gravenhorst, 1829. Ichneumonologia Europaea, 3: 214.

寄主:已知寄主约有50多种,我国已知寄主主要有:灰斑古毒蛾 *Orgyia ericae* Germar、松线小卷蛾 *Zeiraphera griseana* (Hübner)、微红梢斑螟 *Dioryctria rubella* Hampson 等。

观察标本:1♀,辽宁沈阳,1990-05-24,盛茂领采;4♀♀,内蒙古东胜,2006-09-13,盛茂领采;

4 ♀♀, 2 ♂♂, 宁夏盐池, 2006-09-21, 盛茂领采;
2 ♀♀, 5 ♂♂, 宁夏六盘山, 2007-08-30; 7 ♀♀,
1 ♂, 内蒙古东胜, 2008-06-18, 盛茂领采。

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